



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

[Handwritten signature]

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/513,518	02/25/2000	Cedell Adam Alexander JR.	RAL9-99-0073	7208

25299 7590 08/25/2003

IBM CORPORATION
PO BOX 12195
DEPT 9CCA, BLDG 002
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

PHILPOTT, JUSTIN M

ART UNIT PAPER NUMBER

2665

DATE MAILED: 08/25/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,518

Applicant(s)

ALEXANDER ET AL.

Examiner

Justin M Philpott

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-13,15-17,19,20,22,24,25,27,29,30 and 32-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-13,15-17,19,20,22,24,25,27,29,30 and 32-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. In the Amendment filed June 16, 2003, Applicant has amended claims 1, 6, 9, 13, 17, 22 and 27 to include limitations recited in previously objected claims, and has canceled claims 2, 5, 14, 18, 21, 23, 26, 28 and 31. Applicant has also determined that the reference designated by "ANA" in the IDS filed February 25, 2000 does not qualify as prior art and thus should not be considered. In view of the Amendment, Applicant has overcome the previous rejections of the claims under 35 U.S.C. 102(e) and 103(a) and reference "ANA" will not be considered.

Allowable Subject Matter

2. The indicated allowability of claims 5-8, 13-16, 21, 26, and 31-34 is withdrawn in view of the newly discovered reference(s) to Hartmann et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 13 recites the limitation "the second protocol means" (last two lines). There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3, 4, 6-13, 15-17, 19, 20, 22, 24, 25, 27, 29, 30 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,445,715 to Annaamalai et al. in view of U.S. Patent No. 6,516,355 to Hartmann et al.

Regarding claims 1, 13, 17, 22 and 27, Annaamalai teaches a network switch (e.g., 300, see FIGS. 2 and 3) comprising a CPU (e.g., processor, see col. 5, lines 49-64), a memory system having circuitry operable to attach to the CPU (e.g., see col. 5, lines 51-54), a switch fabric system (e.g., parsing engine 303 in conjunction with switching bus 310) having circuitry operable to attach to the CPU, a port controller (e.g., port cards 12) having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU (e.g., see col. 5, lines 49-64 regarding software programs associated with the protocol), a Forwarding Database Distribution Library system (e.g., forwarding database 332) operable to execute on the CPU, and a switch device driver (e.g., forwarding engine 330) operable to execute on the CPU; wherein the software application is operable to communicate with the FDDL system (e.g., forwarding database 332, see col. 5, line 38 – col. 6, line 28), the FDDL system (e.g., forwarding database 332) is operable to communicate with the switch device driver (e.g., forwarding engine 330, see col. 6, lines 16-28), and the switch device driver (e.g., forwarding engine 330) is operable to communicate with the switch fabric (e.g., parsing engine 303 in conjunction with switching bus 310). Annaamalai further teaches a plurality of software applications (e.g., see

Art Unit: 2665

“software programs” in col. 5, line 53; and “software processes” in col. 5, line 60) are utilized by the FDDL system, wherein the FDDL system (e.g., forwarding database 332) is preferably organized as a table structure used for learning and forwarding operations (e.g., see col. 6, lines 19-21).

However, Annaamalai may not specifically disclose the FDDL system comprises a base FDDL system and plural software application towers.

Hartmann teaches improvements for network switching equipment and, specifically, teaches an FDDL system (e.g., 100 in FIG. 4) comprising a base FDDL system (e.g., logical management device 120), a software application tower FDDL system (e.g., object server coupled to 124), and a second software application tower FDDL system (e.g., media API coupled to 112), wherein the base FDDL system communicates with a switch device driver (e.g., native switch call-cont transaction manager 116), a software application (e.g., OA&M interface translation at 124) communicates with the software application tower FDDL system, a second software application (e.g., native switch translation at 112) communicates with the second software application tower FDDL system, and the base FDDL system (e.g., 120) communicates with the software application tower FDDL system (e.g., at 124) and the second software application tower FDDL system (e.g., at 112). The teachings of Hartmann provide a method by which a single API can be used to control a number of switches having different message protocols (e.g., see col. 3, lines 36-39), thus providing improved network adaptability. Accordingly, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Hartmann to the network switch of Annaamalai in order to control a number of switches having different message protocols thus providing improved network adaptability.

Art Unit: 2665

Regarding claims 6, 8, 9, 10, 16, 32 and 34, Annaamalai in view of Hartmann teaches the switch discussed above regarding claims 1, 13, 17, 22 and 27, and further, Hartmann teaches an independent software application (e.g., system software, see col. 1, line 67) and independent software application shim (e.g., native switch translation 110, 112, 114, 124 in FIG. 4) are operable to execute on a CPU. As discussed above, the teachings of Hartmann provide a method by which a single API can be used to control a number of switches having different message protocols (e.g., see col. 3, lines 36-39), thus providing improved network adaptability. Accordingly, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Hartmann to the network switch of Annaamalai in order to control a number of switches having different message protocols thus providing improved network adaptability.

Regarding claims 3, 7, 11, 15, 19, 24, 29 and 33, Annaamalai teaches utilizing application program interfaces (API) for communications with the FDDL system (e.g., see col. 7, lines 13-67 regarding DTP protocol wherein messages are exchanged between applications and the switching fabric).

Regarding claims 4, 12, 20, 25 and 30, Annaamalai teaches utilizing application program interfaces (API) for communications with the FDDL system (e.g., see col. 7, lines 13-67 regarding DTP protocol wherein messages are exchanged between applications and the switching fabric). Annaamalai further teaches a plurality of software applications are utilized by the FDDL system (e.g., see col. 5, lines 53-60).

Art Unit: 2665

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9314 for regular communications and 703.872.9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.

Justin M Philpott



August 20, 2003



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600